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Effects of group counseling with cognitive-behavioral approach on reducing psychological symptoms of Premenstrual syndrome (PMS)

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Abstract

Approximately 90 percent of women experience one symptom of PMS (Hsiao et al., 2002) and these symptoms affect women's relationships with their family, work environment and society. This research aims to assess the significance of cognitive behavioral treatment in reducing symptoms of PMS. This study is a semi-experimental one which comprises two groups named test and control. During the research, pre-test and post-test scores of the two groups obtained by two PMS test were compared and analyzed using covariance analysis. The results revealed that cognitive-behavioral approach has an effect on psychic and physical components of PMS among female personnel of Iran University of Science and Technology has relived it.

Keywords: Cognitive-behavioral approach, premenstrual syndrome, psychological symptom, women;

1. Introduction

Perhaps there is not an experience like menstrual cycle to affect whole a woman's psychological and physical structure deeply. This "different quality of feminine life" has an enormous influence upon her feeling of identity and being a woman and it's obviously the way she deals with these fundamental changes plays an extremely important role in woman's healthiness. Menstruation has a crucial role in keeping life balance like other body functions such as digestion, blood circulation, excretion etc. and changes in its quality may affect woman's mental and physical condition differently.

PMS such as changes and disorders in woman's mood and emotional conditions are absolutely critical since temperament status influences which method the person chooses for his/her lifestyle. Emotions are represented in human's heart, words and body. Even it has effects on the way a person judges in different situations. Hence, PMS can be interpreted as a temperamental disorder that might be influential on some aspects of person's cognition. (Eysenk et al., 2005). Since many of the hygienic diseases and problems impact human's psychic health, it's

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inevitable to adopt psychic-biologic models in the context of women's mental and physical health because females are more likely to develop temperamental disorders (Sadock et al., 2003).

Blake, Salkovskis and Gath (1998) have described CBT method for curing PMS. They believe that women who suffer from PMS might interpret psychological incidents in a negative manner. Applying CBT method makes women find more adapting ways with premenstrual changes (Connolly, 2001). Therefore, pre wisdom of PMS that causes psychic and physical disorders could reduce many of the individual, family and social problems and be helpful in promoting people's mental health.

This research aims to evaluate how cognitive- behavioral approach decreases psychological and physical symptoms of the syndrome.

1.1 Research hypotheses:

- 1- Cognitive-behavioral therapy has an impact on reducing psychological symptoms of premenstrual syndrome.
- 2- Cognitive-behavioral therapy has an impact on reducing physical symptoms of premenstrual syndrome.

2. Methods

2.1. Universe and sample

The universe of the research involves all of the female staffs aged from 25 to 45 years of Iran University of Science and Technology during 2009-2010 who were invited to participate in this research by a summon and using voluntary sampling method. After gathering questionnaires and ignoring incomplete ones, by considering the age range (25-45 years) and completion of PMS form which had been distinguished as PMS, 34 persons were assigned randomly into two groups of test and control each of which including 17 members (See Table 1 for the participants' demographic information).

Table 1- The participant's demographic information

Groups	Number	Gender	Age(Mean± SD)
Intervention	17	All Female	25-45
Control	17	All Female	25-45

2.2. Measures

2.2.1. Premenstrual syndrome questionnaire

The questionnaire of premenstrual symptoms syndrome is designed by Campagne & Campagne in 2006 and its validity had been appraised in Iran and its reliability has been calculated equal to 0.82 by retesting. This questionnaire has been graded by likert scale and scores from 0 to 4 are assigned to mild, moderate, severe and extremely severe respectively(Campagne and Campagne, 2007).

2.3. Procedure

After randomized selecting of participants and assigning them into two groups of test and control, the test group received cognitive-behavioral training and control group had no intervention. Ten training sessions were held as a 2 hour session per week and by passing 2 months both groups were given the post test.

2.4. Data analysis

Descriptive statistical methods and covariance analysis were applied to analyze acquired data.

3. Results

Hypothesis no. 1: Cognitive-behavioral therapy has an impact on reducing psychological symptoms of premenstrual syndrome.

Table 2- Summary of covariance analysis to evaluate the effect of CBT on the score of mental subscale of PMS

source	SS	df	MS	F	Sig.
Pre- test	217.51	1	217.51	76.93	0.00
CBT	249.81	1	249.81	88.35	0.00
Error	2.82	27	76.33		

The calculated F indicator for Cognitive-behavioral therapy ($f=88.35$) in table 2 is more than critical Value of F with a degree of freedom equal to 1 and 27 regarding 5% percent (4.21%) error. So, the first hypothesis is confirmed ($P<0.05$).

Hypothesis no. 2: Cognitive-behavioral therapy has an impact on reducing physical symptoms of premenstrual syndrome.

Table 3- Summary of covariance analysis to evaluate the effect of CBT on the score of physical subscale of PMS

source	SS	df	MS	F	Sig.
Pre- test	280.56	1	280.56	160.21	0.00
CBT	83.34	1	83.34	47.63	0.00
Error	47.28	27	1.75		

The calculated F indicator for Cognitive-behavioral therapy ($f=47.63$) in table 3 is more than critical Value of F with a degree of freedom equal to 1 and 27 regarding 5% percent (4.21%) error. Therefore, with the certainty of 95% hypothesis 0 concerning that there is no difference between two research groups (test and control) is rejected.

4. Discussion

Hypothesis no. 1: Cognitive-behavioral therapy has an impact on reducing psychological symptoms of PMS

Anxiety is one of the most widespread psychological symptoms of PMS and results obtained from this study demonstrated that cognitive-behavioral therapy reduces premenstrual anxiety. Findings of this research are in agreement with study done by Picone and Kirkby(1990) in which the relationship between anxiety and PMS was examined. Their study indicated that PMS symptoms have a significant correlation with anxiety. Kirkby (1994) put forward an argument to survey the effect of sport on PMS and drew the conclusion that doing exercises does not decline the symptoms and just relieves it's anxiety. Regarding these findings, doing exercises related to muscle relaxation were emphasized to decrease women's anxiety as a result of PMS. The present research showed that avoiding worrying thoughts including anxious ones, training creative thoughts, believing in herself as a person with both abilities and shortcomings, refraining from hiding defects, reducing expectancies from herself and the others, planning and organizing things to improve person's purposefulness and clear up confusion could relieve anxiety from PMS.

Another obvious symptoms of PMS is irritability which might be declined by cognitive-behavioral therapy used in this study. The obtained results are consistent with the research done by Choi and Salmon(1995) who argued the tendency to stress in active and inactive women and found that menstrual cycle has an effect on cardiac system of the body and emotional states. On the other hand, results of the present research are not supported by study done by Bergant et al., (1998) that showed emotional disorders like anger and anxiety have less impact on PMS.

Hypothesis no. 2: Cognitive-behavioral therapy has an impact on reducing physical symptoms of PMS.

The outcomes of the second premise are in line with study done by Blake et al., in 1998. They concluded that cognitive therapy remarkably reduces psychological and physical symptoms and deficiency of performance in women's suffering from PMS. It seems that awareness and use of various techniques improve psychological safety, alleviate stress and enhance self-confidence. Recent researches lend support to this finding.

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